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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/633,816	08/04/2003	Leon Pryor	MS1-1626US	7499

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EXAMINER	
SHAH, MILAP	
ART UNIT	**PAPER NUMBER**
3712	

DATE MAILED: 03/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/633,816	PRYOR, LEON	
	Examiner	Art Unit	
	Milap Shah	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *04 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-41* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *04 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *8/4/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

Claim 1 is objected to because of the following informalities: Claim 1 recites "a variety" which may be considered vague and indefinite, where it is unclear as to which player exploitable game conditions are part of the "variety". Appropriate correction is required.

Claim 32 is objected to because of the following informalities: Punctuation. There appears to be two punctuation marks at the end of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-16 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 1 recites "...to identify..." however, it is unclear how the identification is carried out from monitoring without certain determination steps between the monitoring process and the identification process. A review of Applicant's specification did not result in a specific passage that can support how the identification process results from the monitoring process specifically.

Claim 4 recites "...the monitoring checks..." however, similar to the above explanation it is unclear how the monitoring "checks" without any determination steps. A review of Applicant's

specification did not result in a specific passage that can support how the checking process results from the monitoring process specifically.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 10, 11, 28, 30, 31, 36, 38, & 39 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 10 recites the limitation "the cheater's privileges" in line 1. There is insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitations "other players" in line 1 and "the cheater" in line 2. There is insufficient antecedent basis for these limitations in the claim.

Claims 28 & 36 recite the limitation "the rollover rate" in lines 2 & 3, respectively. There is insufficient antecedent basis for this limitation in the claim.

Claims 30, 31, 38 & 39 recite the limitation "cheaters". There is insufficient antecedent basis for these limitations in the claim. Claims 23 & 32, from which claims 30, 31, 38, & 39 depend, do not appear to set up an antecedent basis for "cheaters". It is unclear if "cheaters" are those who exceed the threshold, and if "cheaters" are not those who exceed a threshold, it is unclear what defines "cheaters".

Due to the large number of 35 U.S.C. 112 issues, the claims will be examined based on the Examiner's best understanding of the claims.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 17-22 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claim 17 recites "...a game..." which does not appear to produce "a useful, concrete, and tangible result" according to the requirements of 35 U.S.C. 101. The "game" in this situation is considered analogous to a computer program *per se*, which is considered to be non-statutory subject matter. According to MPEP 2106, computer programs "are neither computer components nor statutory processes, as they are not 'acts' being performed. Such claimed computer programs do not define any structural and functional interrelationships between the computer program and other claimed elements of a computer which permit the computer program's functionality to be realized." See MPEP 2106 for guidance in presenting properly drafted claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-11, 14-22, 40, & 41 are rejected under 35 U.S.C. 102(b) as being anticipated by "Security Issues in Online Games" by Jianxin Jeff Yan & Hyun-Jin Choi (hereafter "Yan et al).

Claims 1, 3-5, 7, 17, 18, 20: Yan et al. disclose the same invention including a cheating detection method including monitoring players via an engine, which is considered the cheater detection portion, in a game to identify one of a variety of player-exploitable game conditions (page 130, section C-1) and detecting which players are using the player-exploitable game conditions to cheat. Yan et al. disclose that a cheater detection engine is capable of automatically monitoring critical game events and variables. Yan et al. also disclose the monitoring is for the purpose of detecting and preventing cheating. Yan et al. disclose that adding logging and auditing to the detection system will not only provide good protection against insider cheating, but also a unique solution for dealing with some cheats (page 131, section C-7). The criteria met for logging to take place is simply that the player is playing the game in which logging is present.

Claim 2: Yan et al. disclose player-exploitable game conditions includes virtual assets (page 127, section B-3). Thus, monitoring of game events and variables must include the acquisition of virtual assets since an acquisition of a virtual asset is considered a game event.

Claim 6: Yan et al. disclose different types of player-exploitable game conditions to participate in cheating of a game, which gives one player an advantage over another player (page 126, section A). One example is "camping" in which a player would be sitting with a gun in a corner or similar location where other players must pass, in turn easily attacking the other players (page 126, section A). This is considered a player exploitable game condition that results in cheating because there is no hard coded rule in most games that require a player to be continuously moving.

Claims 8, 21, & 22: Yan et al. disclose the built-in detection engine should be implement in a game server (page 130, section C-1) which the client or player is connected to through a network, thus the detection engine is included as a portion of a network. The server is also considered a "stand-alone computer system" since it is not considered dependent on any other system.

Claims 9 & 11: Yan et al. disclose an active complain-response channel or system to let players of a game complain to game operators about potential security threats or information related to specific cheaters, in return, the game operators may send responses to those who've complained and cheaters who've been named (page 131, section C-6). Yan et al. disclose reporting "possible cheatings" to cheaters and other players, which may be considered reporting the actual activities the suspected cheater conducted to be labeled a cheater.

Claim 10: Yan et al. disclose security protocols that may disconnect a client if a validation process fails and the client is suspected of cheating (page 129, section B-10).

Claim 14: A glitch in a map, level, or scene of a gaming application is inherently a player exploitable gaming condition. Glitches in maps include invisible spots which should be nothing, but end up being a hard platform that a character or player in a game is able to stand on, which puts that player at some location other than the ground plane in the virtual scene. One quick example is the game "Quake 2" which has a map called "The Edge" that has a map glitch which lets a player go to a specific spot in the map and enables the player to essentially "sky walk" and makes the player appear as though he's walking through the air. The map glitch is considered a player exploitable game condition, thus map glitches are inherently player exploitable game conditions since they are capable of allowing a player to be at some location other than the ground plane in the virtual scene. For clarification purposes, the Examiner also interprets claim 14 in alternative way, such that when a player is playing a game and he/she, for example, climbs a ladder, that is "positioning the player at some location other then the ground plane of the virtual scene" and is considered a player exploitable game condition because the player can in fact carry out that act.

Claims 15 & 16: Yan et al. disclose the player-exploitable game conditions include a scoring cheat, such that some cheaters may stealthily remove live stones instead of dead stones from within a game known as Go (also known as WeiQi or Baduk) overturning the results (page 127, section B-2 & page 131, section C-7). Yan et al. disclose that money or expense exploits are within virtual assets cheating and where there is virtual money or expenses, there are cheaters trying to exploit the game to gain money in the virtual world (page 128, section B-3).

Claim 19: According to Applicant's specification an "asynchronous activity pump" provides desired game data relating to the play of the players in a game to the "play monitor". Yan et al. disclose a built-in detection portion which monitors game events and variables (page 130, section C-1), which is considered to be an "asynchronous activity pump" to provide the gaming events and variables to the detection portion (which is considered the play monitor).

Claims 40 & 41: Yan et al. disclose various methods of players cheating and exploiting player-exploitable game conditions in various games and also methods for cheater detection and prevention, specifically a built-in detection system at the server level. Yan et al. explains that virtual assets are a big area in which exploiting is used. The built-in detection system disclosed monitors every game event and game variables (page 130, section C-1), thus, it is considered to monitor every item accrued, traded, lost, gained, etc. in a virtual world and indicate this to the player monitor (the built-in detection portion) so that a determination can be made by the built-in detection portion as to whether a player-exploitable game condition is being exploited. With regards to claim 41, Yan et al. disclose that there should be a relationship between the number of items moved around and the number of items generated by the server and if this principle is violated (such as virtual property being accrued to quickly by a single user) a triggering event is sent to the built-in detection engine to take appropriate action. Also, the cheat detection and all the

features/systems discussed here must be carried out by instructions (program code) recorded on a computer readable medium since the features/systems are considered part of a computer or video game which runs on a computer or equivalent gaming console.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 12, 13, 23, 24, 27-33, & 35-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yan et al., as applied to claims 1-11, 14-22, 40, & 41, where applicable, in view of Leen et al. (U.S. Patent No. 6,979,267).

Claim 12, 13, 23, & 32: Yan et al. disclose the invention substantially as claimed including monitoring the player of a plurality of players in a game using a built-in detection system. Yan et al. also discusses how logging would help in proving that a particular player cheated, thus, implementing the logging includes logging all game events and variable changes as monitored by the built-in cheat detection system for a particular game session. Yan et al. fails to specifically disclose a threshold has been set and to determine if a player exceeds this threshold. The Examiner believes these may be inherent within the operation of a built-in cheat detection system, to set a threshold of proper game play and the detection system would detect when a player exceeded that threshold of proper game play. However, rather then merely assuming this takes place, the reference, Leen et al. specifically discusses setting a threshold in a game and monitoring if this threshold is exceeded. Leen et al. teach that by monitoring a threshold in a gaming environment a

game operator or statistics server could determine if a particular player was participating in the game at an expected skill level or not. Leen et al. also specifically point out that that such an audit of player performance may reveal cheating. Thus, if a player in Leen et al's system were to exceed a threshold, it would be determined that the player is too skilled and is probably cheating (column 8, lines 29-40). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the built-in detection system taught by Yan et al. to specifically include a threshold and determine if a player is cheating by determining if the threshold is exceeded in order to maintain a fair and enjoyable gaming experience for all players. With regards to claim 32, instructions (program code) recorded on a computer readable medium must be used since elements disclosed are considered part of a computer or video game which runs on a computer or equivalent gaming console.

Claims 24 & 33: The logging is considered to encompass all of the game events and variable changes, thus, the logging is capable of being used by the detection system to determine cheating.

Claims 27-29 & 35-37: The combination of Yan et al. & Leen et al. disclose predetermined thresholds used in detecting cheating. One of ordinary skill in the art would find it obvious to use the game events related to acquiring virtual assets, rollover rates (i.e. excess scoring), and dupping (i.e. fraudulent trading or sale of virtual assets) for use in setting a threshold. Yan et al. disclose all three areas of exploitable game conditions, such as the rate of acquiring virtual assetss (page 128, section B-3 & page 131, section C-4), scoring cheats or rollover rates (page 128, section B-2 & page 131, section C-7) and dupping or fraudulent trade/sale of virtual assets (page 128, section B-4 & page 131, section C-4). With the knowledge of these well known exploitable game conditions, one of ordinary skill in the art would have found it obvious to create a threshold around these areas and to use the game event data and game variables to monitor the rate at which these game

conditions are exploited in order to maintain a fair gaming experience for all players by removing or otherwise punishing players that are cheating in any area of the game, be it building assets, having a higher score, or even selling off their virtual items in the real world, since all of these areas of game play contain player exploitable game conditions. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the cheat detection system w/ thresholds as taught by the combination of Yan et al. & Leen et al. to include a threshold based on acquiring virtual assets, rollover rates (i.e. excess scoring), and dupping (i.e. fraudulent trading or sale of virtual assets) in order to maintain a fair and enjoyable gaming experience for all players by removing or otherwise punishing players that are cheating in any area of the game, be it building assets, having a higher score, or even selling off their virtual items in the real world, since all of these areas of game play contain player exploitable game conditions.

Claims 30, 31, 38, & 39: Yan et al. disclose that post-detection mechanisms are needed when cheating has been detected, such that cheaters should be punished and victims damaged unfairly in the game caused by the cheating should be restored (page 131, section C-8). Thus, Yan et al. discloses punishing of cheaters and modifying the game to restore any losses accrued by the victims of the cheating incident.

Claims 25, 26, & 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yan et al. & Leen et al., as applied to claims 12, 13, 23, 24, 27-33, & 35-39, where applicable, further in view of Heller et al. (U.S. Patent Application Publication No. 2003/0216962).

Claims 25, 26 & 34: The combination of Yan et al. & Leen et al. disclose the invention substantially as claimed except for specifically disclosing or suggesting that the predetermined thresholds used in the cheater detection system are capable of being modified during game play or

reset. However, Heller et al. teach a similar cheat detection system that relies on user feedback to report cheating. A threshold is set in Heller similar to that in the combination of Yan et al. & Leen et al., however, Heller et al. teach the threshold is capable of being modified based on the number of players in a game (abstract & paragraph 0010) and also teach resetting a particular players threshold due to it being met and requiring the person to resubmit for a new account (claims 27 and 38), thus obtaining a reset threshold. Allowing for adjusting the threshold creates a system, which is flexible and may work with various types of gaming applications including different amounts of players. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the combination of Yan et al. & Leen et al. to automatically adjust thresholds based on the number of active players and also to reset a threshold for a particular player once it has been met, further removing that players account and requiring resubmission for a new account in order to create a flexible cheat detection system which may work with various different types of gaming applications including different amounts of players.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Name	Reference	Applicability
Davis et al.	U.S. Patent No. 6,165,072	Apparatus and process for verifying honest gaming transactions over a communications network.
Overton	U.S. Patent Application Publication 2004/0242321	Cheater detection in a multi-player gaming environment.
Pearson et al.	U.S. Patent Application Publication 2004/0078572	Method of validating performance of a participant in an interactive computing environment.
Leen et al.	U.S. Patent Application Publication 2003/0045359	System and method for providing game advise to a user of a gaming application.
Smed et al.	Aspects of Networking in Multiplayer Computer Games	Distributed real-time multiplayer computer games including discussion about cheating and detecting cheating.
Pritchard	Internet Cheating: How to Hurt Hackers	The inside scoop on internet cheating and how you can combat it. Discusses detection using thresholds.
Kee	Cheating in Multi-player Gaming	Multi-player gaming and cheating.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Milap Shah whose telephone number is (571) 272-1723. The examiner can normally be reached on M-F: 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Jones can be reached on (571) 272-4438. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

M.B.S.

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PRIMARY EXAMINER